10/563166 29 DEC 2005

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ccc caa att f	tgt cga agg Cys Arg Arg 85	g cat tgt g His Cys	act tt Thr Le	u Arg Me	g gaa ctt t Glu Leu	ctt ggc. Leu Gly 95	. 288
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				cag Gln												38	34
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	_	_			gta Val				_		_	_		_	. 816
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Val Ala Ser Asp Glu Glu Lys Pro Thr Ser Ala Gly Pro Cys Ile Pro 65 70 75 80

Asn Pro Cys His Asn Gly Gly Thr Cys Glu Ile Ser Glu Ala Tyr Arg 85 90 95

Gly Asp Thr Phe Ile Gly Tyr Val Cys Lys Cys Pro Arg Gly Phe Asn · 100 105 110

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Cys Pro Gly Glu Phe Met Gly Arg Asn Cys Gln Tyr Lys Cys Ser Gly 145 150 155 160

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gaa cct ttg ggg atg aaa tca ggg cat ata caa gac tac cag atc act Glu Pro Leu Gly Met Lys Ser Gly His Ile Gln Asp Tyr Gln Ile Thr 325 330 335	1008
gcc tcc agc gtc ttc aga aca ctc aac atg gac atg ttt act tgg gaa Ala Ser Ser Val Phe Arg Thr Leu Asn Met Asp Met Phe Thr Trp Glu 340 345 350	1056
cca agg aaa gcc agg ctg gac aag caa ggc aaa gta aat gcc tgg act Pro Arg Lys Ala Arg Leu Asp Lys Gln Gly Lys Val Asn Ala Trp Thr 355 360 365	1104
tcc ggc cat aac gac cag tca caa tgg tta cag gtt gat ctt ctt gtc Ser Gly His Asn Asp Gln Ser Gln Trp Leu Gln Val Asp Leu Leu Val 370 375 380	1152
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Met Lys His Leu Val Ala Ala Trp Leu Leu Val Gly Leu Ser Leu Gly 10 Val Pro Gln Phe Gly Lys Gly Asp Ile Cys Asn Pro Asn Pro Cys Glu 20 Asn Gly Gly Ile Cys Leu Ser Gly Leu Ala Asp Asp Ser Phe Ser Cys	
Met Lys His Leu Val Ala Ala Trp Leu Leu Val Gly Leu Ser Leu Gly 15 Val Pro Gln Phe Gly Lys Gly Asp Ile Cys Asn Pro Asn Pro Cys Glu 30 Asn Gly Gly Ile Cys Leu Ser Gly Leu Ala Asp Asp Ser Phe Ser Cys 40 Glu Cys Pro Glu Gly Phe Ala Gly Pro Asn Cys Ser Ser Val Val Glu	
Met Lys His Leu Val Ala Ala Trp Leu Leu Val Gly Leu Ser Leu Gly 1 Sr Leu Gly 1 Sr Leu Gly 20 Sr Leu Ser Gly Asp Ile Cys Asn Pro Asn Pro Cys Glu 20 Asn Gly Gly Ile Cys Leu Ser Gly Leu Ala Asp Asp Ser Phe Ser Cys 40 Sr Pro Glu Cys Pro Glu Gly Phe Ala Gly Pro Asn Cys Ser Ser Val Val Glu 50 55 60 Val Ala Ser Asp Glu Glu Lys Pro Thr Ser Ala Gly Pro Cys Ile Pro	

GIY	iie	115	СУБ	GIII	птэ	ASII	120	ASII	Giu	Cys	Giu	125	Giu	PIO	Суѕ
	Asn 130	Gly	Gly	Ile	Cys	Thr 135	Asp	Leu	Val	Ala	Asn 140	Туr	Ser	Суѕ	Glu
Cys 145	Pro	Gly	Glu	Phe	Met 150	Gly	Arg	Asn	Cys	Gln 155	Tyr	Lys	Суз	Ser	Gly 160
Pro	Leu	Gly	Ile	Glu 165	Gly	Gly	Ile	Ile	Ser 170	Asn	Gln	Gln	Ile	Thr 175	Ala
Ser	Ser	Thr	His 180	Arg	Ala	Leu	Phe	Gly 185	Leu	Arg	Lys	Trp	Туг 190	Pro	Tyr
Tyr	Ala	Arg 195	Leu	Asn	Lys	Lys	Gly 200	Leu	Ile	Asn	Ala	Trp 205	Thr	Ala	Ala
Glu	Asn 210	Asp	Arg	Trp	Pro	Trp 215	Ile	Gln	Ile	Asn	Leu 220	Gln	Arg	Lys	Met
Arg 225	Val	Thr	Gly	Val	Ile 230	Thr	Gln	Gly	Ala	Lys 235	Arg	Ile	Gly	Ser	Pro 240
Glu	Tyr	Ile	Lys	Ser 245	Tyr	Lys	Ile	Ala	Туг 250	Ser	Asn	Asp	Gly	Lys 255	Thr
Trp	Ala	Met	Туг 260	Lys	Val	Lys	Gly	Thr 265	Asn	Glu	Glu	Met	Val 270	Phe	Arg
Gly	Asn	Val 275	Asp	Asn	Asn	Thr	Pro 280	Tyr	Ala	Asn	Ser	Phe 285	Thr	Pro	Pro
Ile	Lys 290	Ala	Gln	Tyr	Val	Arg 295	Leu	Tyr	Pro	Gln	Ile 300	Cys	Arg	Arg	His
Cys 305	Thr	Leu	Arg	Met	Glu 310	Leu	Leu	Gly	Cys	Glu 315	Leu	Ser	Gly	Cys	Ser 320
Glu	Pro	Leu	Gly	Met 325	Lys	Ser	Gly	His	Ile 330	Gln	Asp	Tyr	Gln	Ile 335	Thr
Ala	Ser	Ser	Val 340	Phe	Arg	Thr	Leu	Asn 345	Met	Asp	Met	Phe	Thr 350	Trp	Glu

Gly Ile His Cys Gln His Asn Ile Asn Glu Cys Glu Ala Glu Pro Cys

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tac agc aat gac ggg aag acc tgg gca atg tac aaa gta aaa ggc acc Tyr Ser Asn Asp Gly Lys Thr Trp Ala Met Tyr Lys Val Lys Gly Thr 35 40 45	144
aat gaa gag atg gtc ttt cgt gga aat gtt gat aac aac aca cca tat Asn Glu Glu Met Val Phe Arg Gly Asn Val Asp Asn Asn Thr Pro Tyr 50 55 60	192
gct aat tct ttc aca ccc cca atc aaa gct cag tat gta aga ctc tac Ala Asn Ser Phe Thr Pro Pro Ile Lys Ala Gln Tyr Val Arg Leu Tyr 65 70 75 80	240
ccc caa att tgt cga agg cat tgt act tta aga atg gaa ctt ctt ggc Pro Gln Ile Cys Arg Arg His Cys Thr Leu Arg Met Glu Leu Leu Gly 85 90 95	288
tgt gag ctc tca ggc tgt tca gaa cct ttg ggg atg aaa tca ggg cat Cys Glu Leu Ser Gly Cys Ser Glu Pro Leu Gly Met Lys Ser Gly His 100 105 110	336
ata caa gac tac cag atc act gcc tcc agc gtc ttc aga aca ctc aac Ile Gln Asp Tyr Gln Ile Thr Ala Ser Ser Val Phe Arg Thr Leu Asn 115 120 125	384
atg gac atg ttt act tgg gaa cca agg aaa gcc agg ctg gac aag caa Met Asp Met Phe Thr Trp Glu Pro Arg Lys Ala Arg Leu Asp Lys Gln 130 135 140	432

ggc aaa gta Gly Lys Val 145	Asn Ala '							480
tta cag gtt Leu Gln Val	-	_				Ile I		528
caa gga gct Gln Gly Ala								576
cta gct tac Leu Ala Tyr 195		Asp Gly						624
aaa cag agg Lys Gln Arg 210	_				_	_		672
cac agg aaa His Arg Lys 225	Asn Val	~			-		-	720
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Tyr Ser Asn 35	Asp Gly	Lys Thr	Trp Ala 40	Met Tyr	Lys Val 45	Lys G	ly Thr	
Asn Glu Glu 50	Met Val	Phe Arg 55	Gly Asn	Val Asp	Asn Asn 60	Thr P	ro Tyr	
Ala Asn Ser	Phe Thr	Pro Pro	Ile Lys	Ala Gln	Tyr Val	Arg L	eu Tyr	

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Pro Gln Ile Cys Arg Arg His Cys Thr Leu Arg Met Glu Leu Leu Gly 90 85 Cys Glu Leu Ser Gly Cys Ser Glu Pro Leu Gly Met Lys Ser Gly His 100 105 110 Ile Gln Asp Tyr Gln Ile Thr Ala Ser Ser Val Phe Arg Thr Leu Asn 120 115 Met Asp Met Phe Thr Trp Glu Pro Arg Lys Ala Arg Leu Asp Lys Gln 135 Gly Lys Val Asn Ala Trp Thr Ser Gly His Asn Asp Gln Ser Gln Trp Leu Gln Val Asp Leu Leu Val Pro Thr Lys Val Thr Gly Ile Ile Thr 170 Gln Gly Ala Lys Asp Phe Gly His Val Gln Phe Val Gly Ser Tyr Lys 185 Leu Ala Tyr Ser Asn Asp Gly Glu His Trp Met Val His Gln Asp Glu 200 Lys Gln Arg Lys Asp Lys Val Phe Gln Gly Asn Phe Asp Asn Asp Thr 210 215 220 His Arg Lys Asn Val Ile Asp Pro Pro Ile Tyr Ala Arg Phe Ile Arg 230 235 Ile Leu Pro Trp Ser Trp Tyr Gly Arg Ile Thr Leu Arg Ser Glu Leu 245 250

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<212> DNA

<213> Mus musculus

<220>

<221> CDS

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	_				-	acc Thr		_	_			-				144
						cgt Arg 55										192
						cca Pro										240
			-	_		cat His	_			-	_	_				288
_		ctc Leu			_											306
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cgg aag tgg tat Arg Lys Trp Tyr 65				
aat gcc tgg aca Asn Ala Trp Thr			Pro Trp Ile	
aat ttg caa aga Asn Leu Gln Arg 100				
aaa agg att gga Lys Arg Ile Gly 115		Ile Lys Ser		
agc aat gac ggg Ser Asn Asp Gly 130				
gaa gag atg gtc Glu Glu Met Val 145			Asn Thr Pro	
aat tct ttc aca Asn Ser Phe Thr			Val Arg Leu	

-		~	cga Arg 180			_			_	_	-				_	576
			ggc Gly	_		-		_		_						624
	_		cag Gln			_		_	_		_				_	672
gac Asp 225	_					·										678
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cys 1	GIU	AIA	GIU	5	Суѕ	ALG	ASII	GIY	10	116	Cys	1111	Asp	15	vai	
Ala	Asn	Туг	Ser 20	Суз	Glu	Cys	Pro	Gly 25	Glu	Phe	Met	Gly	Arg 30	Asn	Cys	
Gln	Tyr	Lys 35	Cys	Ser	Gly	Pro	Leu 40	Gly	Ile	Glu	Gly	Gly 45	Ile	Ile	Ser	
Asn	Gln 50	Gln	Ile	Thr	Ala	Ser 55	Ser	Thr	His	Arg	Ala 60	Leu	Phe	Gly	Leu	
Arg 65	Lys	Trp	Tyr	Pro	Туг 70	Tyr	Ala	Arg	Leu	Asn 75	Lys	Lys	Gly	Leu	Ile 80	
Asn	Ala	Trp	Thr	Ala 85	Ala	Glu	Asn	Asp	Arg 90	Trp	Pro	Trp	Ile	Gln 95	Ile	
Asn	Leu	Gln	Arg 100	Lys	Met	Arg	Val	Thr 105	Gly	Val	Ile	Thr	Gln 110	Gly	Ala	
Lys	Arg	Ile 115	Gly	Ser	Pro	Glu	Tyr 120	Ile	Lys	Ser	Tyr	Lys 125	Ile	Ala	Tyr	
Ser	Asn 130	Asp	Gly	Lys	Thr	Trp 135	Ala	Met	Tyr	Lys	Val 140	Lys	Gly	Thr	Asn	

145	Phe Arg 150	Gly Asn	Val Asp	Asn Asn 155	Thr Pro		Ala 160
Asn Ser Phe Thr	Pro Pro 165	Ile Lys	Ala Gln 170	Tyr Val	Arg Leu	Tyr 1	Pro
Gln Ile Cys Arg		Cys Thr	Leu Arg 185	Met Glu	Leu Leu 190	Gly (Cys
Glu Leu Ser Gly 195	Cys Ser	Glu Pro 200	Leu Gly	Met Lys	Ser Gly 205	His I	[le
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Gln Tyr Lys Cys Ser Gly Pro Leu Gly Ile Glu Gly Gly Ile Ile Ser
Asn Gln Gln Ile Thr Ala Ser Ser Thr His Arg Ala Leu Phe Gly Leu
                        55
Arg Lys Trp Tyr Pro Tyr Tyr Ala Arg Leu Asn Lys Lys Gly Leu Ile
                    70
Asn Ala Trp Thr Ala Ala Glu Asn Asp Arg Trp Pro Trp Ile Gln
                                    90
                85
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aat gcc tgg act tcc ggc cat aac gac cag tca caa tgg tta cag gtt
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Asn Ala Trp Thr Ser Gly His Asn Asp Gln Ser Gln Trp Leu Gln Val
            20
                                                    30
gat ctt ctt gtc cct act aag gtg aca ggc atc att aca caa gga gct
                                                                      144
Asp Leu Leu Val Pro Thr Lys Val Thr Gly Ile Ile Thr Gln Gly Ala
        35
                                                                      192
aaa gat ttt ggt cac gtg cag ttt gtt ggg tca tac aaa cta gct tac
Lys Asp Phe Gly His Val Gln Phe Val Gly Ser Tyr Lys Leu Ala Tyr
    50
                                            60
                                                                      240
agc aat gat gga gaa cac tgg atg gtg cac cag gat gaa aaa cag agg
Ser Asn Asp Gly Glu His Trp Met Val His Gln Asp Glu Lys Gln Arg
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aaa gac aag gtt Lys Asp Lys Val				
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Asn Ala Trp Thr 20	Ser Gly His	Asn Asp Gln 25	Ser Gln Trp L	
Asp Leu Leu Val 35	Pro Thr Lys	Val Thr Gly	Ile Ile Thr G 45	ln Gly Ala
Lys Asp Phe Gly 50	His Val Gln 55	Phe Val Gly	Ser Tyr Lys L 60	eu Ala Tyr
Ser Asn Asp Gly 65		Met Val His		
Lys Asp Lys Val	Phe Gln Gly 85	Asn Phe Asp 90	Asn Asp Thr H	is Arg Lys 95
Asn Val Ile Asp 100	Pro Pro Ile	e Tyr Ala Arg 105		le Leu Pro 10
Trp Ser Trp Tyr 115	Gly Arg Ile	Thr Leu Arg	Ser Glu Leu L 125	eu Gly Cys
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195

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gac Asp 225																678
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Gln	Tyr	Lys 35	Cys	Ser	Gly	Pro	Leu 40	Gly	Ile	Glu	Gly	Gly 45	Ile	Ile	Ser	
Asn	Gln 50	Gln	Ile	Thr	Ala	Ser 55	Ser	Thr	His	Arg	Ala 60	Leu	Phe	Gly	Leu	
Gln 65	Lys	Trp	Tyr	Pro	Tyr 70	Tyr	Ala	Arg	Leu	Asn 75	Lys	Lys	Gly	Leu	Ile 80	
Asn	Ala	Trp	Thr	Ala 85	Ala	Glu	Asn	Asp	Arg 90	Trp	Pro	Trp	Ile	Gln 95	Ile	
Asn	Leu	Gln	Arg 100	Lys	Met	Arg	Val	Thr 105	Gly	Val	Ile	Thr	Gln 110	Gly	Ala	
Lys	Arg	Ile 115	Gly	Ser	Pro	Glu	Tyr 120	Ile	Lys	Ser	Tyr	Lys 125	Ile	Ala	Tyr	
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Glu 145	Asp	Met	Val	Phe	Arg 150	Gly	Asn	Ile	Asp	Asn 155	Asn	Thr	Pro	Tyr	Ala 160	
Asn	Ser	Phe	Thr	Pro 165	Pro	Ile	Lys	Ala	Gln 170	Tyr	Val	Arg	Leu	Туг 175	Pro	

Gln V	al Cys	Arg 180	Arg	His	Cys	Thr	Leu 185	Arg	Met	Glu	Leu	Leu 190	Gly	Суѕ	
Glu L	eu Ser 195	Gly	Суѕ	Ser	Glu	Pro 200	Leu	Gly	Met	Lys	Ser 205	Gly	His	Ile	
	sp Tyr 10	Gln	Ile	Thr	Ala 215	Ser	Ser	Ile	Phe	Arg 220	Thr	Leu	Asn	Met	
Asp M 225	et														
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